

REMARKS

Applicants request favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

Claims 27 and 29-36 are now pending in this application, with Claim 27 being independent. By this Amendment, Applicants have canceled Claims 28 and 37-44, and amended Claim 27. No new matter has been added.

Claims 27-30, 32, 35-39, 41 and 44 stand rejected under 35 U.S.C. § 102 as being anticipated by Japanese Laid-Open Patent Application No. 9-329754 (Tomita).

Claims 31 and 40 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tomita in view of U.S. Patent No. 5,408,493 (Aoki). Claims 33 and 42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tomita in view of U.S. Patent No. 5,999,345 (Nakajima, et al.). Claims 34 and 43 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tomita in view of Japanese Laid Open Patent Application No. 10-10447 (Asami, et al.). Applicants traverse these rejections.

As recited in independent Claim 27, Applicants' invention is directed to a multi-beam scanning apparatus having a light source unit (which includes a laser light source and a driving circuit board), scanning means and a housing. A straight line passing the plurality of the emission points of the laser light source is inclined with respect to the longitudinal edge of the driving circuit board to the which the terminal of the laser light source is fixed. In addition, the longitudinal edge of the driving circuit board is arranged to be substantially parallel with a longitudinal edge of the wall of the housing.

With the above configuration, because the driving circuit board can be positioned within the wall width (or wall height) of the housing with an inclination, the distance between laser beams can be adjusted by inclining the plurality of emission points. Consequently, the size of the apparatus does not have to be unnecessarily enlarged to adjust the distance between the laser beams.

Tomita is directed to a semiconductor laser light source having a plurality of light emission points. Unlike the present invention, Applicants submit that Tomita merely discloses a device in which the distance between the light emission points changes as the light sources rotate. Applicants do not understand Tomita to suggest a relationship concerning the orientation of the driving circuit board. More specifically, paragraph [0018] of that document merely states that distance r' is a distance in the Y direction between an imaginary line L passing the center of connector 9 and light emitting point 31a or 31b. Tomita does not state the relationship between a longitudinal edge of the driving circuit board to which the laser light source is fixed and the longitudinal edge of the wall of the housing.

Aoki is cited in the Office Action as describing an angle-adjusting holder for adjusting an inclination angle with respect to a fixed plate. Nakajima, et al. is cited in the Office Action as describing the alternative use of one-dimensional and two-dimensional laser arrays in an optical scanning device. Asami, et al. is merely cited as describing the use of a collimator lens for collimating the laser beams emitted from the laser light source and a lens barrel for holding the collimator lens. Applicants submit that these documents fail to remedy the deficiencies discussed above with respect to Tomita.

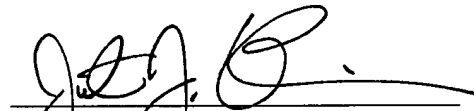
Accordingly, Applicants submit that Tomita, Aoki, Nakajima, et al. and Asami, et al., taken alone or in combination, fail to disclose or suggest at least the features of a laser light source having a terminal fixed to a driving circuit board such that a straight line passing a plurality of emission points of the laser light source is inclined with respect to a longitudinal edge of the driving circuit board, and the longitudinal edge of the driving circuit board being arranged substantially in parallel with a longitudinal edge of a wall of the housing, as recited in independent Claim 27.

For the foregoing reasons, Applicant submits that independent Claim 27 is allowable over the documents of record. The remaining claims in the present application are dependent claims which depend from independent Claim 27, and thus are patentable over the applied documents for reasons noted above with respect to that independent claim. In addition, each recites features of the invention still further distinguishing it from the applied documents. Applicants request favorable and independent consideration thereof.

In view of the comments above, Applicants request withdrawal of the rejections under 35 U.S.C. §§ 102 and 103.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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